

ince of Manitoba, the former numbering 59 species, and the latter 268 species and 5 additional subspecies. Both lists are very carefully annotated and throw much light on the ranges and manner of occurrence of the mammals and birds in Manitoba. They are thus welcome and valuable contributions to faunal literature. Here and there, mostly in the technical names, a few typographical errors mar the otherwise excellent appearance of the paper.

Manitoba, about 250 miles square in area, is faunally partly Canadian and partly Alleghanian; "a line drawn from the southeast corner to the northwest corner," says the author, "would nearly demark these zones."

As usual in all local bird lists of these days, the former abundance of many species, in comparison with their present scarcity, is noted. Thus the statements: "Formerly common and breeding; now nearly extinct"; "much less common than formerly," etc., after many of the species of wild fowl form a sad record of the passing away of species once apparently in no danger of extirpation. On the other hand, the Prairie Hen, almost unknown in Manitoba in 1882, has since "spread with cultivation, and is now abundant in all the settled parts" of the Province. A similar increase in extent of range and numbers is noted for the Mourning Dove, Burrowing Owl, and the unwelcome English Sparrow.

In this connection attention should be called to Mr. Seton's great work on the Mammals of Manitoba, just issued in two sumptuous royal octavo volumes,¹ with over 1300 pages of text, 100 plates, 68 maps, and several hundred text illustrations, the outcome of many years' observations. The ornithologist will be especially interested in the part treating of the faunal zones of not only Manitoba but of North America at large, with the accompanying full-page faunal map. There is naturally many incidental references to birds in the work; besides, there are few ornithologists who have not a strong interest in the life histories of mammals as well as birds.—
J. A. A.

Cory's 'The Birds of the Leeward Islands.'²—This is (1) a summary of the ornithological results of two expeditions to the Leeward Islands for the Field Museum and (2) a list of the birds previously recorded from these islands, which include Arubu, Curaçao, Bonaire, Islas de Aves, Los Roques, Orchilla, Blanquilla, Los Hermanos, Testigos, and Margarita. Each of these islands is treated separately, its geographic position, extent, and character being stated, followed by its ornithological bibliography, and a list of the birds known to occur there, with a reference to the specimens taken by the Field Museum expeditions. These lists are summarized in a

¹ Life Histories of Northern Animals: An Account of the Mammals of Manitoba. Charles Scribner's Sons, New York, 1909. Two volumes, roy. 8vo. \$18.00 net per set.

² The Birds of the Leeward Islands, Caribbean Sea. By Charles B. Cory, Curator of Department of Zoölogy, Field Museum of Natural History Publication No. 137. Ornithological Series. Vol. I, No. 5, pp. 193-255, with map. Chicago, October, 1909.

'Table of Species and Subspecies,' which shows by means of symbols their distribution in the islands, and whether the record is based on specimens in the Field Museum, on previously published records, or specimens observed in life but not taken. The combined list numbers 161 species and subspecies, nearly all of which are represented by specimens in the Field Museum, collected in the spring of 1908 by Mr. John F. Ferry and Dr. Ned Dearborn, and in the early part of the year 1909 by Mr. Ferry. One species and three subspecies are described as new; the collectors' field notes are given, and in many cases extended technical annotations. The paper is thus a valuable summary of present knowledge of the ornithology of the Leeward Islands.— J. A. A.

Fisher on the Economic Value of Predaceous Birds and Mammals.— An eight-page paper¹ by Dr. A. K. Fisher states briefly the economic relations of the principal predaceous mammals and birds of North America to agriculture. The house cat is arraigned as the "sleek highwayman" that "destroys in the aggregate more wild birds and young poultry than all the native natural enemies combined," adding that a well-known naturalist estimates "that in the New England States alone 1,500,000 birds are destroyed annually by cats."

A good word is said in behalf of the much maligned hawks and owls, with the exception of two of the former and one of the latter, whose portraits in color, by Fuertes, are pilloried in the three plates that illustrate the paper, in order that they may be the better recognized and distinguished from the beneficial species that for the most part compose these two groups of useful birds. These species are the Sharp-shinned Hawk, the Cooper's Hawk, and the Great Horned Owl. Other birds of usually unsuspected beneficial traits are the Great Blue Heron and the Bittern, which prey upon injurious rodents; certain gulls and terns also gorge themselves on grasshoppers and crickets, while some of them feed extensively on field mice and other small rodents. Crows and Jays, while effective destroyers of pests, are seriously destructive of the eggs and nestlings of useful wild birds.

The educational information here presented will be widely distributed among agriculturists, and should be effective in placing the matter in a proper light before those most interested in the suppression of farm pests.— J. A. A.

Beebe on the Breeding of Canada Geese in Captivity.— Apropos of industries connected with semi-wild birds, Mr. Beebe, in a recent number of the 'Zoölogical Society Bulletin,' published by the New York Zoölogical Society, gives an account of the rearing of Canada Wild Geese on Chinco-

¹ The Economic Value of Predaceous Birds and Mammals. By Dr. A. K. Fisher, in Charge of Economic Investigations, Biological Survey. Yearbook of Department of Agriculture for 1908 (1909), pp. 187-194, pls. i-iii (colored). Also separate.